

The Honorable Robert S. Lasnik

UNITED STATES DISTRICT COURT FOR THE  
WESTERN DISTRICT OF WASHINGTON  
AT SEATTLE

UNITED STATES OF AMERICA,  
Plaintiff,  
  
v.  
PAIGE A. THOMPSON,  
Defendant.

NO. CR19-159-RSL

**UNITED STATES' SUPPLEMENT TO  
TRIAL BRIEF ADDRESSING  
ADMISSIBILITY OF EXPERT TESTIMONY  
OF KENNETH HENDERSON AND  
JOHN STRAND**

**INTRODUCTION**

In its trial brief filed on May 27, 2022, the defense objected to the admission of testimony by two of the government's expert witnesses, Secret Service Special Agent Kenneth Henderson and John Strand. Dkt. No. 277 at 4–6. The United States of America, by and through Nicholas W. Brown, United States Attorney for the Western District of Washington, and Andrew C. Friedman, Jessica M. Manca, and Tania M. Culbertson, Assistant United States Attorneys for said District, hereby submits a memorandum on the admissibility of the testimony of these experts so that the Court may make the requisite findings that their testimony is both reliable and relevant under Federal Rule of Evidence 702, admissible under Rule 704, and that the probative value of

1 the testimony is not substantially outweighed by a danger of unfair prejudice or of  
2 misleading the jury under Federal Rule of Evidence 403.

### 3 DISCUSSION

4 **A. The expert testimony of Special Agent Henderson is reliable and relevant to**  
5 **Thompson's intent to defraud, an element of Access Device Fraud (Count 9),**  
6 **and is not misleading or unfairly prejudicial**

7 Kenneth Henderson is a Special Agent for the United States Secret Service. As set  
8 forth in his curriculum vitae (CV), a copy of which is attached as Exhibit A and has been  
9 provided to the defense, since 2016 Special Agent Henderson's work has focused on  
10 credit card fraud, most recently including the use of dark web and online criminal forums  
11 to commit credit card fraud. As part of his work, he conducts undercover activity to  
12 purchase stolen credit card information and compromised network data. In 2018 he  
13 completed Dark Web Cyber Threat Analysis and Advance Network Intrusion Responder  
14 trainings, and in October 2021 he completed a Network Forensics for Incident  
15 Responders training. He recently spoke at the International Association of Financial  
16 Crimes Cyber Fraud Summit on the topic of Transnational Cyber Fraud Investigations  
17 and Success Stories.

18 As set forth in the government's trial brief, *see* Dkt. No. 267 at 21, Special Agent  
19 Henderson will testify concerning credit card fraud, including how people commit credit  
20 card fraud and carding forums where they exchange and sell items necessary for credit  
21 card fraud (including personally identifiable information). He will explain how the  
22 personally identifiable information (PII) Thompson stole from Capital One could have  
23 been used to commit credit card fraud. He will explain actions Thompson took that  
24 suggested an intent to commit such fraud. To take just one example, he will explain for  
25 the jury the meaning and significance of terms in web searches Thompson conducted  
26 after stealing the Capital One data, such as "carding forums dark web." And he will  
27 testify that the stolen information had a value, for criminal purposes, that far exceeded  
28 \$5,000, a statutory threshold for one of the counts in the case.

1 The information included in Special Agent Henderson’s CV certainly  
 2 demonstrates that he is qualified as an expert by knowledge, skill, experience, training,  
 3 and education, Fed. R. Evid. 702, and the defense has not asserted otherwise. And  
 4 Special Agent Henderson’s expert testimony on the subjects outlined above is reliable.  
 5 *See, e.g., United States v. Hankey*, 203 F.3d 1160, 1167–69 (9th Cir. 2000) (citing *Kumho*  
 6 *Tire Co. v. Carmichael*, 526 U.S. 137 (1999), and admitting an officer’s expert testimony  
 7 about gang affiliations and the potential consequences for snitching by a gang member  
 8 under Rule 702 because the officer had “been working undercover with gang members”  
 9 for years, had “received formal training in gang structure and organization,” and he  
 10 “taught classes about gangs”). Just as in *Hankey*, Rule 702 “works well” for the kind of  
 11 evidence Special Agent Henderson will offer here because it is “gathered from years of  
 12 experience and special knowledge.” *Id.* at 1169. Special Agent Henderson’s expert  
 13 testimony is not—as the defense seems to suggest—based on “mere subjective beliefs or  
 14 unsupported speculation.” Dkt. No. 277 at 5 (quoting *Millenkamp v. Davisco Foods Int’l,*  
 15 *Inc.*, 562 F.3d 971, 979 (9th Cir. 2009)). Rather, it is based on his years of experience  
 16 with, and special knowledge of, credit card fraud and use of the dark web and online  
 17 criminal forums for committing credit card fraud.

18 Special Agent Henderson’s expert testimony is also undeniably relevant in this  
 19 case. One of the charges Thompson faces at trial is Access Device Fraud in violation of  
 20 18 U.S.C. § 1029(a)(3), (b)(1) and (c)(1)(a)(i). And one of the elements the government  
 21 must prove for that charge is that in knowingly possessing and attempting to possess  
 22 counterfeit and unauthorized access devices, Thompson “acted with the intent to  
 23 defraud.” Ninth Circuit Model Jury Instruction – 15.12 (2022 Edition – *Approved Dec.*  
 24 *2021, Revised Mar. 2022*). Thompson’s intent to commit credit card fraud (that is, her  
 25 intent to deceive and cheat—an intent to deprive a victim of money or property by  
 26 deception) in possessing and attempting to possess PII including thousands of social  
 27 security numbers and bank account numbers is therefore a fact in issue in the case. *See*  
 28 *United States v. Saini*, 23 F.4th 1155, 1164–65 (9th Cir. 2022) (reviewing the evidence of

1 defendant’s intent to defraud and affirming a conviction under § 1029(a)(3)). There is  
 2 thus a clear “link between” Special Agent Henderson’s expert testimony “and the matter  
 3 to be proved”—that is, his expert testimony is relevant. *Stilwell v. Smith & Nephew, Inc.*,  
 4 482 F.3d 1187, 1192 (9th Cir. 2007) (quotation marks and citation omitted).

5 The defense’s objection that Special Agent Henderson’s testimony will invite the  
 6 jury to “engage in guilt by precognition rather than resolve a live, dispute[d] issue of  
 7 fact” is baseless. Dkt. No. 277 at 5. The “live, disputed issue of fact” is whether, in  
 8 possessing and attempting to possess more than 15 access devices, Thompson acted with  
 9 an intent to defraud. Although the parties agree that “the FBI has no reason to believe  
 10 that Thompson distributed the data that she downloaded or that she uploaded it to an  
 11 external storage device,” the government has made clear that “there is ample evidence  
 12 that she was actively looking for an opportunity to do so.” Dkt. No. 267 at 11. And  
 13 evidence of Thompson’s intent to defraud in relation to the stolen access devices  
 14 includes: her searches of the Capital One data for PII of people who had addresses in  
 15 Seattle; her creation of a list of Seattle residents’ PII that she named the  
 16 “Capitol\_One\_Inclusion\_List;” her creation of a separate file with the PII of one of the  
 17 people on that list, J.B., and J.B.’s PII appearing in an autofill field on Thompson’s  
 18 phone; Thompson’s web searches over several months about topics like credit card  
 19 algorithms, “carding forums dark web,” and renting servers in Russia; and her social  
 20 media messages, including a June 5, 2019 message stating that she was “thinking about  
 21 carding alot [sic] lately.” *See id.* at 11–12. Special Agent Henderson’s expert testimony  
 22 about credit card fraud, the dark web, and carding forums will help the jury to understand  
 23 the significance of all this evidence with respect to Thompson’s intent to defraud.

24 The probative value of Special Agent Henderson’s expert testimony is not  
 25 substantially outweighed by a danger of unfair prejudice or misleading the jury. *See, e.g.*,  
 26 *United States v. Gomez*, 725 F.3d 1121, 1128–29 (9th Cir. 2013) (expert testimony that  
 27 drug-trafficking organizations do not use unknowing drug couriers “was probative and  
 28 relevant, and it was not unduly prejudicial”); *United States v. McCollum*, 802 F.2d 344,

346 (9th Cir. 1986) (no error under Rules 702 or 403 in admitting expert testimony “regarding the typical structure of mail fraud schemes” because it could “help the jury to understand the operation of the scheme and to assess [the defendant]’s claim of noninvolvement” and “was not so outweighed by prejudice . . . that exclusion was required”). According to the defense, “this case does not involve the distribution or monetization of the allegedly stolen data” and therefore Special Agent Henderson’s proposed testimony is “theoretical in nature.” Dkt. No. 277 at 5. But, as demonstrated above, it certainly does involve Thompson’s intent to monetize the stolen data. Special Agent Henderson’s testimony is probative on that point, it is not unduly prejudicial, and it will assist the jury.

The government respectfully asks the Court to find that Special Agent Henderson is qualified as an expert under Fed. R. Evid. 702, his expert testimony is reliable and relevant, and the probative value of his testimony is not substantially outweighed by a danger of unfair prejudice or misleading the jury. Special Agent Henderson’s expert testimony should be admitted.

**B. John Strand’s expert testimony is reliable and relevant to the charges and defenses in this case, does not go to an ultimate issue of fact, and is not unfairly prejudicial**

John Strand is Senior Security Analyst/Principal of Black Hills Information Security and has over 20 years of experience in the field of computer security. As set forth in his curriculum vitae (CV), a copy of which is attached as Exhibit B and has been provided to the defense, Strand is a nationally recognized expert on ethical hacking, penetration testing, and hacking techniques and incident response. He teaches and authors classes for the SANS Institute and Security Weekly, and regularly presents to organizations including the FBI, NASA, and the NSA. He holds a Masters of Applied Science in Computer Information Systems and a number of SANS and other certifications.

As set forth in the government’s trial brief, *see* Dkt. No. 267 at 20–21, Strand will testify about industry terms, common practices, and ethical norms within the computer-

1 security community. Among other terms relevant to this case, Strand will define the  
 2 phrases “white hat hacker,” “grey hat hacker,” and “black hat hacker.” He will testify  
 3 that accepted norms of the ethical hacking community include obtaining permission to  
 4 conduct computer intrusions and stopping short of exploiting vulnerabilities. He will also  
 5 testify that Thompson’s conduct violated these norms and that her use of victim role  
 6 credentials would be considered “black hat hacking.” And he will testify about the  
 7 different standards within different parts of the computer-security community as to what  
 8 type of disclosure of vulnerabilities is appropriate.

9 Just as with Special Agent Henderson, there is no colorable argument—and the  
 10 defense has not asserted—that Strand is not qualified as an expert by his knowledge,  
 11 skill, experience, training, and education. Fed. R. Evid. 702. Nor does the defense argue  
 12 that Strand’s expert testimony regarding the subjects outlined above would not be  
 13 reliable. His testimony clearly “has a reliable basis in the knowledge and experience of  
 14 [Strand’s relevant] discipline.” *Kumho Tire Co.*, 526 U.S. at 149 (quoting *Daubert v.*  
 15 *Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 592 (1993)); *see also Hankey*, 203  
 16 F.3d at 1169. Instead, the defense objects because it believes Strand will offer an opinion  
 17 “on an ultimate issue of fact,” Dkt. No. 277 at 5, and therefore his opinion should be  
 18 excluded under Fed. R. Evid. 704. Not so.

19 An expert witness generally may offer an opinion on an ultimate issue to be  
 20 decided by the jury, provided he or she does not opine directly on the ultimate issue of  
 21 the defendant’s mental state. *See United States v. Freeman*, 498 F.3d 893, 906 (9th Cir.  
 22 2007) (no error to allow “extensive opinion testimony regarding how [the government’s  
 23 expert] believed that [the defendant]’s words and actions were consistent with the  
 24 common practices of drug traffickers”); *see also* Fed. R. Evid. 704(b) (“In a criminal  
 25 case, an expert witness must not state an opinion about whether the defendant did or did  
 26 not have a mental state or condition that constitutes an element of the crime charged or of  
 27 a defense.”).

Strand will not offer an opinion on Thompson’s mental state when she used victim companies’ role credentials to access their computer systems and steal data and computing power. Strand certainly will not offer a direct opinion on Thompson’s guilt or innocence. Rather, Strand will define computer security industry terms for the jury, describe the norms of ethical computer hacking, and offer his opinion as to whether Thompson’s conduct would be considered “black hat hacking” (i.e., violative of those norms) and whether Thompson’s bragging to a few individuals about her conduct met any of the security community’s standards for responsible disclosure. Strand’s expert testimony will come nowhere close to running afoul of Rule 704. In other words, he will “not substitute his judgment for the jury’s; he [will] provide[] a professional opinion about whether a course of conduct comported with [the ethical standards] prevalent in the [computer-security] community.” *United States v. Diaz*, 876 F.3d 1194, 1199 (9th Cir. 2017).

Ultimately at issue in this case is whether Thompson, with the intent to defraud, devised and intended to devise, a scheme and artifice to defraud and to obtain money or property by means of materially false and fraudulent pretenses, representations, and promises. Also at issue (with respect to the CFAA counts) is whether Thompson intentionally accessed computers without authorization. Strand’s testimony is relevant—that is, it will be helpful to the jury—because, among other things, it will help the jury to understand the concept of “authorization” in the computer-security community, particularly with respect to ethical versus unethical hacking. It will also help the jury to understand the concept of a “responsible disclosure” within the computer-security community.

Notably, it is Thompson, rather than the government, who injected the concept of “white hat hacking” and “responsible disclosures” into this case and apparently intends to rely heavily on them as part of her defense. *See, e.g.*, Dkt. No. 123 at 7 (arguing that the Court should dismiss the CFAA counts because otherwise “so-called ‘white hat hackers,’ also known as computer security experts or ‘researchers’ would also be liable under the

1 CFAA every time they ‘breached’ an open gate on the Internet and reported such to the  
 2 company who left the gate open”); Dkt. No. 160 at 1 (asserting that Thompson’s actions  
 3 were “akin to that of a novice white-hat hacker or security researcher” and that had she  
 4 “acted less erratically” and “notified Capital One through its Responsible Disclosure  
 5 program (rather than alerting the information security community at large of the events in  
 6 question), she surely would not have been charged”); *see also* Dkt. No. 211 at 7 (arguing  
 7 that “unless the government is intending to prosecute every white hat hacker in the  
 8 United States, scanning public ports for misconfigurations and then being automatically  
 9 granted ‘administrator’ access by a misconfigured server is not *unauthorized* access of a  
 10 computer system as required by the CFAA”); Dkt. No. 240 at 12 (claiming that “the  
 11 government’s interpretation of the pertinent CFAA provisions captures helpful and  
 12 common white hat hacker behavior”).

13 As a result, Strand’s testimony is relevant to counter the arguments the defense has  
 14 made abundantly clear it intends to raise (that Thompson was a “white hat hacker” and  
 15 her bragging online constituted a “responsible disclosure”). *See McCollum*, 802 F.2d at  
 16 346 (expert testimony “regarding the typical structure of mail fraud schemes” was  
 17 permissible because it could “help the jury to understand the operation of the scheme and  
 18 to assess [the defendant]’s claim of noninvolvement”). Indeed, Thompson’s own trial  
 19 brief asserts that “the issue is her individualized intent, *i.e.*, whether Ms. Thompson  
 20 intended to be a security researcher or ‘white hat’ hacker when she accessed the servers,  
 21 even if her behavior did not fall neatly within the accepted norms of such a role.” Dkt.  
 22 No. 277 at 6. Thompson cannot assert a defense that she intended to be a security  
 23 researcher and white hat hacker, and then seek to exclude as irrelevant competent  
 24 testimony of what the terms “security researcher” and “white hat hacker” actually mean.

25 Finally, the probative value of Strand’s testimony is not outweighed by a danger of  
 26 unfair prejudice. *See Gomez*, 725 F.3d at 1128–29 (permitting expert testimony that  
 27 drug-trafficking organizations do not use unknowing drug couriers as “probative and  
 28 relevant, and . . . not unduly prejudicial”). Strand will deliver his expert opinion

1 regarding practices in the computer-security community—practices with which the  
 2 average juror likely will not be familiar—and how Thompson’s actions do or do not fit  
 3 with those practices. The jury will then, based on all of the evidence, determine whether  
 4 Thompson had authorization to do what she did and whether she acted with an intent to  
 5 defraud.

6 The government respectfully asks the Court to find that John Strand is qualified as  
 7 an expert under Fed. R. Evid. 702, his expert testimony is reliable and relevant, his  
 8 testimony is permitted under Fed. R. Evid. 704, and the probative value of his testimony  
 9 is not substantially outweighed by a danger of unfair prejudice.

### 10 CONCLUSION

11 For all the above-stated reasons, the Court should rule that the expert testimony of  
 12 Special Agent Henderson and John Strand is admissible.

13 Dated: June 6, 2022

14 Respectfully submitted,  
 15 NICHOLAS W. BROWN  
 16 United States Attorney

17 s/ Andrew C. Friedman  
 18 s/ Jessica M. Manca  
 19 s/ Tania M. Culbertson  
 20 ANDREW C. FRIEDMAN  
 21 JESSICA M. MANCA  
 22 TANIA M. CULBERTSON  
 23 Assistant United States Attorneys  
 24 700 Stewart Street, Suite 5220  
 25 Seattle, WA 98101  
 26 Phone: (206) 553-7970  
 27 Fax: (206) 553-0882  
 28 Email: andrew.friedman@usdoj.gov  
 jessica.manca@usdoj.gov  
 tania.culbertson@usdoj.gov